



গড়গাঁও মহাবিদ্যালয়

GARGAON COLLEGE

NAAC accredited with 'B' Grade



Course Distribution
Department of Physics
2020-21

Course distribution of odd semester, 2020-21

Department: Physics

Faculty Name	Semester		Paper Code	Unit wise division
Bilip Bordoloi	I	H	C2: Mechanics C2-Lab	Fundamental of dynamics, Work and energy, Collision, Rotational dynamics, Elasticity.
		GE	GE1: Mechanics	Elasticity, Special theory of Relativity.
	III	M	C6: Thermal Physics	Zeroth and First Law of Thermodynamics, Secod law of Thermodynamics, Entropy.
		GE	DSC-3A: Thermal Physics and Statistical Mechanics	Law of thermodynamics
	V	M	PHYM 50300 Atomic and Molecular Physics	Unit I: Quantum Theory of Atom Unit II: Fine Structure of Atom Unit III: Molecular Spectra and Lasers
		GE	PHYG 50100: Atomic and Nuclear Physics	Unit II: Atomic Physics
Atul Borchetia	I	H	C1: Mathematical Physics-1 C2-Lab	Calculus
		GE	GE1: Mechanics	Momentum and energy, Rotational motion.
	III	M	C5: Mathematical Physics-II	Fourier Series, Frobenius Method and Special Function, Some Special Integral
		GE	DSC-3A: Thermal Physics and Statistical Mechanics	Theory of radiation
	V	M	PHYM 50100: Mathematical Physics	Unit I: Differential equation and Special function Unit II: Complex variables
		GE	PHYG 50100: Atomic and Nuclear Physics	Unit III: Accelerator
Diganta konwar	I	H	C2: Mechanics	Fluid motion, Gravitation and Central force motion, Oscillation, Non-Inertial systems.
		GE	GE1: Mechanics	Gravitation, Oscillation
	III	M	C7: Digital System and Application C6-Lab C7-Lab	Introduction to CRO, Integrated Circuit, Digital Circuit, Boolean Algebra, Data Processing Circuits, Arithmetic Circuit, Sequential Circuit, Timers, Shift registers, Counters(4 bits)
		GE	DSC-3A: Thermal Physics and Statistical Mechanics	Kinetic Theory of Gases.
	V	M	PHYM 50400 : Electronics	Unit I: Semiconductor Unit II: Transistor and Amplifier Unit III: Oscillation and Integrated circuit

		GE	PHYG 50100: Atomic and Nuclear Physics	Unit III : Nuclear Physics
Guna Kanta Sonowal	I	H	C1: Mathematical Physics-1 C1-Lab.	Vector Calculus, Vector differentiation, Vector integration.
		GE	GE1: Mechanics	Vector, Ordinary differential Equation.
	III	M	C6: Thermal Physics	Thermodynamic Potential, Maxwell's Thermodynamic Relations, Kinetic Theory of Gasses, Distribution of velocities, Molecular Collisions, Real Gases,
		GE	DSC-3A: Thermal Physics and Statistical Mechanics	Statistical Mechanics.
	V	M	PHYM 50200: Electrodynamics and Special Relativity	Unit I: Electromagnetic fields Unit II: Propagation of electromagnetic waves
		GE	PHYG 50100: Atomic and Nuclear Physics	Unit I : Cathode rays, X-ray, Photoelectric effect.
Jayanta Sonowal	I	H	C1: Mathematical Physics-1	Orthogonal Curvilinear Coordinates, Introduction to probability, Dirac Delta function and its properties.
			C2: Mechanics	Special theory of relativity.
		GE	GE1: Mechanics	Law of motion.
	III	M	C5: Mathematical Physics-II C7: Digital System and Application C5-Lab C7-Lab	Theory of Errors, Partial Differential Equations. Computer organization, Intel 8085 Microprocessor Architecture, Introduction to Assembly Language.
			GE	C5: Mathematical Physics-II C7: Digital System and Application C5-Lab C7-Lab
	V	M	PHYM 50100: Mathematical Physics PHYM 50200: Electrodynamics and Special Relativity PHYM 50400 : Electronics	Unit III: Fourier series Unit III: Special Theory of Relativity Unit IV: Digital electronics
			GE	-




H.O.D. Physics

Course distribution even Semester 2020- 2021

Faculty Name	Semester		Paper Code	Unit wise division
Bilip Bordoloi	I	H	C3: Electricity and Magnetism C4: Waves and Optics C4-Lab	Electric circuits, Network Theorems, Ballistic Galvanometer. Fresnel diffraction, Holography.
		GE	DSC-2A: Electricity and Magnetism	Electromagnetic induction, Maxwell's equation and electromagnetic wave propagation.
	IV	M	C8: Mathematical physics-III C9-Lab C10-Lab	Integral Transforms, Laplace transform.
		GE	DSC-4A: Wave and Optics DSC-4A-Lab	Diffraction
	VI	M	PHYM 60300 : Nuclear Physics PHYM 60430: Laser and its Application	Unit I : Properties of Atomic Nuclei Unit II : Nuclear Model Unit I : Introduction to Laser Unit II: Laser system
		GE	PHYG 60100: Electronics and Solid State Physics	Unit IV: Free electron theory of metals.
Atul Borchetia	I	H	C3: Electricity and Magnetism C3-Lab	Magnetic Field, Magnetic properties of Matter, Electromagnetic Induction
		GE	DSC-2A: Electricity and Magnetism DSC-2A-Lab	Electrostatics
	IV	M	C9: Elements of Modern physics	Planck's quantum theory, Radiation, Position measurement, Schrödinger equation, Two slit interference experiments with photons, One dimensional rigid box.
		GE	DSC-4A: Wave and Optics	Michelson's interferometer, Polarization.
	VI	M	PHYM 60200 : Condensed Matter physics PHYM 60430: Laser and its Application	Unit I: Crystal structure Unit II: Properties of solid Unit III: Properties of Laser radiation
		GE	PHYG 60100: Electronics and Solid State Physics	Unit III: Crystal structure
Diganta konwar	I	H	C4: Waves and Optics C4-lab	Superposition of Collinear Harmonic Oscillations, Superposition of two perpendicular harmonic oscillations, Wave motion, Velocity of waves, Superposition of two harmonic waves.
		GE	DSC-2A: Electricity and Magnetism	Electrostatics in Dielectric medium.
	IV	M	C10: Analog System and Application C10-Lab	Semiconductor diode, Two terminal devices and their applications, Bipolar junction transistors, Amplifiers,

				Coupled amplifier, Feedback in amplifiers.	
		GE	DSC-4A: Wave and Optics	Superposition of two collinear harmonic oscillations, Superposition of two perpendicular harmonic oscillations, Wave motion-General.	
		VI	M	PHYM 60200 : Condensed Matter physics PHYM 60300 : Nuclear Physics PHYM 60430: Laser and its Application	Unit III: Semiconductor materials and Superconductivity Unit III: Nuclear reaction and cosmic rays Unit IV: Elementary particles Unit IV: Laser application
		GE	PHYG 60100: Electronics and Solid State Physics	Unit: Semiconductor	
Guna Kanta Sonowal	I	H	C3: Electricity and Magnetism C4-Lab	Electric Field and Electric Potential, Dielectric properties of Matter	
		GE	DSC-2A: Electricity and Magnetism	Vector analysis.	
		IV	M	C8: Mathematical physics-III C9-Lab	Complex Analysis.
		GE	DSC-4A: Wave and Optics DSC-4A-Lab	Sound	
		VI	M	PHYM 60100: Statistical Mechanics PHYM 60430: Laser and its Application	Unit I: Classical statistical physics Unit II: Entropy and partition function Unit V: Magneto- Optics and Electro Optics
		GE	PHYG 60100: Electronics and Solid State Physics	Unit II: Transistor	
Jayanta Sonowal	I	H	C4: Waves and Optics C3-Lab	Wave optics, Interference, Interferometer, Diffraction, Fraunhofer diffraction	
		GE	DSC-2A: Electricity and Magnetism DSC-2A-Lab	Magnetism	
	IV	M	C9: Elements of Modern physics C9: Elements of Modern physics C8-Lab	Atomic Nucleus, Radioactivity, Fission and Fusion, Lasers. Sinusoidal oscillations, Operational amplifiers, Applications of Op-Amps, Conversion.	
		GE	C9: Elements of Modern physics C9: Elements of Modern physics C8-Lab	Atomic Nucleus, Radioactivity, Fission and Fusion, Lasers. Sinusoidal oscillations, Operational amplifiers, Applications of Op-Amps, Conversion.	
	VI	M	PHYM 60100: Statistical Mechanics	Unit III: Quantum statistical physics Unit IV: Application of quantum statistical mechanics	
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H.O.D. Physics